

logical conditions at selected stations and the quality of a single crop. It shows at once that in certain sections sugar beets can not be successfully raised, not because they will not grow, but because the percentage of sugar content is too small. It also shows that apparently high temperature is responsible for the inferior quality of the beet at southern experiment stations.

No doubt similar investigations would disclose equally interesting relations between meteorological conditions and other crops; and in these relations, not alone the farmer, but the whole country is deeply interested.

The investigation of the chemical composition of crops must of course be conducted by the Bureau of Chemistry, but the Weather Bureau, through its corps of more than 3,000 meteorological observers, is able to supply climatic data not otherwise available, and it takes pleasure in cooperating with other bureaus in the promotion of these important investigations.

The Climate and Crop Division of the Weather Bureau is conducting a most important investigation into the relations between the meteorological and the general crop conditions, especially the yield per acre. The crop bulletins, issued weekly during the season of vegetation, summarize for each State the general effect of the weather upon the crops. Any one who is interested in the subject can easily trace, week by week, the effect of abnormal heat, unseasonable cold, excessive rains, or drought upon the various crops. The Bureau of Chemistry is investigating questions that these reports can not touch upon, i. e., the relation between the chemical composition of the crops and these meteorological conditions.

These facts help to emphasize the intimate relations that exist between the work of the various scientific bureaus of the Department of Agriculture. In fact, just such amicable relations should exist between the work of the various scientific bureaus and societies of the whole country. Each can and must draw from and contribute to the work of others; for no science is complete in itself. From mutual cooperation will come mutual advancement.

The importance of the work of our voluntary observers is also clearly shown. The number of fully equipped stations with a paid corps of observers is necessarily limited. Furthermore, most of the first class stations must be located in large cities near the centers of population, where the meteorological conditions differ materially from those that prevail in the agricultural districts. Our voluntary observers are, as a rule, located in the midst of crop producing districts, and they are therefore able to supply just the data required for the study of the relation of the crop to the meteorological conditions. Too much emphasis can not be placed upon the importance of the data they are furnishing, and also upon the necessity for accuracy and faithfulness on the part of the observers who make and record the observations.—H. H. K.

THE METEOROLOGICAL SOCIETY OF MAURITIUS.

In a paper read before the Meteorological Society of Mauritius on April 11, 1901, Mr. T. F. Claxton, F. R. A. S., reviewed very briefly the results achieved during the fifty years of its existence. He stated that the society was established on the first day of August, 1851, its primary object being the promotion of meteorological science in general, and especially that branch of it called cyclonology or the laws of storms.

To this end the society undertook the following work:

1. To procure instruments of the best description as standards of comparison, and to endeavor to keep a supply of other instruments at moderate prices for the use of persons in the colony and its dependencies, and of commanders and masters of vessels.
2. To provide for meteorological, magnetical, and tidal observations being made in Mauritius and its dependencies, Rodrigues, Seychelles,

Diego Garcia, etc., and to aim at the establishment of a permanent meteorological and magnetical observatory.

3. To tabulate meteorological observations taken daily on board vessels in the Indian Ocean.

4. To collect or procure extracts from any meteorological records existing in the archives of the colony, or in hands of private individuals.

5. To encourage masters of vessels trading to this island to make and record observations on the state of the weather, tides, and currents as experienced in the course of their respective voyages, and to communicate such observations to the society.

6. To correspond and exchange observations with similar societies in other countries.

7. To collate, arrange, and publish the information that may be obtained from the above sources.

Probably the most important work of the society has been in connection with the establishment and maintenance of the Royal Alfred Observatory at Mauritius, the comparison of ships' barometers and chronometers with the standards of this observatory, and the collection and discussion of meteorological data from the log books of vessels and from other sources. Barometer comparisons are effected by means of one or two readings of the ship's barometer that are made by a clerk from the observatory. It would seem that much better comparisons would be obtained if the ship's captain were induced to make daily readings while in port, as is done by our own Hydrographic Office. Not only would a greater number of readings be obtained for comparison, but the personal error of the captain's readings and the chance of introducing new errors would also be eliminated.

The decreased number of vessels now stopping at Mauritius as compared with former years, and also the change from the slow sailing to the faster steam vessels, has seriously diminished the number of observations that can be obtained from ships' log books. To offset this loss special efforts are now being made to establish permanent stations on the various small islands in the Indian Ocean.

It is to be hoped that this may be accomplished, since it will be a source of regret to meteorologists if the valuable studies of cyclones in the Indian Ocean, which have been conducted by the society in years past, should now be curtailed through lack of meteorological data.

Mr. Claxton refers with justifiable pride to the publications of the society. Among these he makes special mention of the daily synoptic weather charts of the Indian Ocean. These commenced with January, 1861, and were published under the direction of Dr. C. Meldrum in 1881. Of late years, owing to the few reports received from vessels, the charts have been published during the hurricane season only.

The Cyclone Tracks published in 1891 is another valuable work, and especially the annual reports of the Royal Alfred Observatory which go far toward filling what would otherwise be a large gap in our meteorological observations in the southern hemisphere. A meteorological atlas of the south Indian Ocean is in preparation.

We heartily congratulate the Meteorological Society of Mauritius upon the results achieved during its half century of work. The members are imbued with the true spirit of investigation, and we look for even better results in the future.

Can not nephoscope observations be made and discussed at the Royal Alfred Observatory?—H. H. K.

EARLY METEOROLOGICAL RECORDS.

In the Climate and Crop Report for November, Dr. O. L. Fassig has begun the reprint of some notes by Rev. John Campanius on the weather near Wilmington, Del., during 1644 and 1645. We can but believe that similar ancient records for other parts of the country can be discovered by diligent research. For instance, it was quite the custom for southern planters to keep a daily record of the weather in